

Exercises for Math 480 Week #11

1. Find all solutions to $x^2 - 31y^2 = -1$ and all solutions to $x^2 - 31y^2 = 1$.
2. Do exercise #2 on page 356.
3. Do exercise #3 on page 357.
4. Do exercise #11 on page 357.

Extra Credit: Write a computer program to determine the continued fraction expansion of \sqrt{d} for any positive non-square integer d and use this to generate a table of the continued fraction expansions for all such d less than 100. For even more extra credit, have your program find the least positive solution to $x^2 - dy^2 = \pm 1$.

The extra credit is not due until Monday, December 1.